

Revisiting “Designing Web-based Instruction:  
A Research Review on Color, Typography, Layout, and Screen Density”

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My [2002 capstone research](#) in the University of Oregon's Applied Information Management Master's degree program sought to provide educators who were interested in publishing course materials — or entire courses — to the Web for student access beyond the traditional classroom with a research-based set of visual design guidelines to improve the learners' experience with those materials. Research into Web-based educational resources continues to suggest that student learning is positively impacted when fundamental best practices are applied to the visual design of those materials (Liu, Chen, Sun, Wible, & Kuo, 2010).

Today, it would be easy to assume that everything we thought we knew about online education in 2002 has changed dramatically. My research occurred in a world that did not yet have smartphones, YouTube, social media, or broadband Internet access in the majority of households in North America (pewinternet.org, 2013). Furthermore, my research operated mostly under the assumption that educators would be publishing their course materials in HTML format. Today, and for the past decade, educators can publish to a constantly growing array of online platforms using an equally diverse set of tools and media types.

As I reflect about the underlying thinking that informed this early research, I do, in fact, continue to feel that educators need to understand the role that visual design plays in learner satisfaction with online education and apply the tenets of design to their online content regardless of how and where they are publishing it.

The recommendations in my 2002 study regarding color, typography, and screen density still hold true today. While the modern online world offers exponentially more possibilities for color palettes and typefaces than it did in 2002, learners still perform better with high contrast, well-structured content that is easy to consume across different devices in a variety of physical

settings that avoids unrelated visual clutter. After all, one of the biggest challenges to online learning is the variety of ways in which students access online content (pearsoned.com, 2015).

The recommendations regarding layout also persist in the modern online learning environment; however, I would argue that layout is even more important for educators to address today given the constraints of mobile devices (Koole, McQuilkin, & Ally, 2010). One particular recommendation, in which the 2002 research suggested that users prefer content that is divided up across multiple pages, appears to be challenged by the trend towards longer segments of content published to fewer pages (Cao, 2015). Another reflection of how online content is being accessed on mobile devices.

As educators continue to explore all the means to make content accessible to students online, there will continue to be a need for documenting best practices that educators can follow to ensure that students have the best possible experience with that content. I believe that research has to occur in parallel with developments in online platforms and modes of access available to learners if the investment in online learning is going to pay off in the future.

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